

REMARKS

The Office Action dated January 11, 2006 has been received and its contents carefully noted. In view thereof, it is respectfully requested that the rejections of record be fully reconsidered and withdrawn in view of Applicant's comments with respect thereto set forth below. As previously, claims 1-7 and 9-11 are presently pending in the instant application.

With reference to page 2 of the Office Action, claims 1-3 and 6 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2004/0012980 to Sugiura. This rejection is respectfully traversed in that the publication to Sugiura neither discloses nor suggests that which is presently set forth by Applicant's claimed invention for at least for the reasons provided below.

As noted in Applicant's previous response, independent claim 1 recites a top emission organic light emitting display (OLED), comprising a substrate, a reflective layer disposed on the substrate, a first electrode disposed on the reflective layer, a contact surface between the reflective layer and the first electrode, this surface being a rough surface so as to reduce color shift with a wide viewing angle, an organic layer disposed on the first electrode, and a transparent second electrode disposed on the organic layer. With such a structure, as a bias voltage is applied to the top emission OLED via the first electrode and the transparent second electrode, the organic layer emits radiation in multiple directions and the reflective layer reflects the radiation toward the transparent second electrode. Clearly, these features are not taught by Sugiura.

In rejecting Applicants' claimed invention set forth in independent claim 1, the Examiner states that Sugiura discloses an OLED (Fig. 5) including a substrate (1), a reflective layer (14) disposed on the substrate, a first electrode (13) disposed on the reflective layer, a contact surface (15) between the reflective layer and the first electrode being a rough surface

(paragraph 16), an organic layer (4) disposed on the first electrode, and a transparent second electrode (5) disposed on the organic layer. As noted above, independent claim 1 clearly recites that a contact surface between the reflective layer and the first electrode is a rough surface so as to reduce color shift with a wide viewing angle. For example, according to Fig. 3 and paragraph [0013] of Applicant's specification, the contact surface between the reflective layer 410 and the first electrode 408 is a rough surface to comply with different reflection characteristics of the top emission OLED.

The Applicants submit that these features are not taught by Sugiura. Instead, Sugiura discloses a light emitting element including a substrate 1, a light-scattering layer 14 on the substrate 1, a planarizing layer 15 on the light-scattering layer 14 for planarizing the light-scattering surface and a transparent electrode 13 on the planarizing layer 15. Furthermore, as described in Sugiura, paragraph [0127], the planarizing layer 15 should be a transparent insulating film, for example, of inorganic materials such as SiO₂ or polymer materials such as PMMA. In other words, as the Examiner can appreciate, the light-scattering layer 14 of Sugiura directly contacts the planarizing layer 15, instead of the first electrode 13 as interpreted by the Examiner. Accordingly, the rough contact surface of Sugiura is between the light-scattering layer 14 and the planarizing layer 15, instead of the transparent electrode 13 as stated by the Examiner. While the Examiner states that "The phrase, 'so as to reduce color shift with a wide viewing angle' is a functional limitation, and it does not have a patentable weight since it does not affect the structural limitation of the claim.", Applicants' respectfully submit that this language recites the consequence of the structural limitation of the rough contact surface being positioned between the reflective layer and the first electrode, as recited in independent claim 1 and nowhere to be found in the teachings of Sugiura. Accordingly, while the Examiner has given no patentable significance to the phrase "so as to

reduce color shift with a wide viewing angle”, certainly, patentable significance must be given to the specific structural limitations which precede this language and distinguish the present invention from that of Sugiura.

Furthermore, Sugiura, in paragraph [0160] (Fig. 15), recites that the light-emitting element includes a substrate 51, a reflective electrode 52 with an irregular surface, an electron-injecting layer 53, an electron transport luminescent material layer 54, a hole transport material layer 55, a buffer layer 56, and a transparent electrode 57 stacked on top of each other in this order. In Sugiura paragraph [0162], a positive voltage is applied to the transparent electrode 57 and a negative voltage to the reflective electrode 52, while the present invention applies bias voltage on the first electrode instead of the reflective layer. The electron injection layer 53 is made of Li, which is combined with the electron transport luminescent material layer 54 and the hole transport material layer 55 to function as an organic layer of the present invention. In other words, the reflective electrode 52 of Sugiura directly contacts a portion of the organic layer (i.e. the electrode injection layer 53). Accordingly, the rough contact surface must be between the reflective electrode and the organic layer unlike that which is presently set forth in independent claim 1.

Consequently, because Sugiura fails to include all of the limitations of Applicants' claimed invention in that Sugiura fails to disclose a contact surface between the reflective layer and the first electrode being a rough surface as set forth in independent claim 1 it is respectfully submitted that independent claim 1, as well as those claims which depend therefrom, distinguishes over the teachings of Sugiura and are in proper condition for allowance.

With reference to page 3 of the Office Action, claims 4, 5, 7 and 9-11 have been rejected under 35 USC 103(a) as being unpatentable over Sugiura in view of U.S. Patent Publication

US2004/0070709 to Kanou. This rejection is respectfully traversed in that the patent publication to Kanou does nothing to overcome the aforementioned shortcomings associated with Sugiura and thus the combination proposed by the Examiner fails to render obvious that which is presently set forth by Applicants' claimed invention for at least the following reasons.

With respect to claims 4 and 5, each of these claims are either directly or indirectly dependent upon independent claim 1 and include all of the limitations set forth therein. Accordingly, because Kanou fails to teach or remotely suggest that the contact surface between the reflective layer and the first electrode is a rough surface as set forth in independent claim 1, claims 4 and 5 are believed to clearly distinguish over the combination proposed by the Examiner and are in proper condition for allowance.

Regarding claim 7, similar to independent claim 1, independent claim 7 recites "a first electrode disposed on the reflective layer and electrically coupled to the thin film transistor, a contact surface between the reflective layer and the first electrode being a rough surface so as to reduce color shift with a wide viewing angle." Clearly, the combination proposed by the Examiner fails to render obvious that which is presently set forth in independent claim 7.

In rejecting independent claim 7, the Examiner relies on the Kanou reference as showing a substrate having a thin film transistor, a planarization layer disposed on the substrate covering the thin film transistor, a reflective layer disposed on the planarization layer, and an electrode electrically coupled to the thin film transistor. Applicants submit that, even if the Kanou reference does teach these features, it does not aid in overcoming the deficiencies of Sugiura as noted above. Accordingly, Applicants respectfully submit that neither Sugiura nor Kanou discloses a rough contact surface between the reflective layer and the first electrode.

Therefore, Applicants respectfully submit that independent claim 7, as well as those claims which depend therefrom, clearly define over the combination of references proposed by the Examiner and are in proper condition for allowance.

Accordingly, in view of the arguments set forth above, the it is respectfully requested that the rejections of record be reconsidered and withdrawn by the Examiner, that claims 1-7 and 9-11 be allowed and that the application be passed to issue.

Respectfully submitted,



Donald R. Studebaker
Reg. No. 32,815

Nixon Peabody LLP
401 9th Street N.W.
Suite 900
Washington, D. C. 20004
(202) 585-8000